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## NOTICE OF ALLOWANCE AND FEE(S) DUE

20457 7590 03/08/2010
ANTONELLI, TERRY, STOUT & KRAUS, LLP

ANTONELLI, TERRY, STOUT & KRAUS, LLI 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON VA 22209-3873

EXAMINER				
THOMPSON, CAMIE S				
ART UNIT	PAPER NUMBER			
1794	•			

DATE MAILED: 03/08/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,696	07/16/2007	Kazumasa Takeuchi	1303.46565X00	3031

 ${\tt TITLE~OF~INVENTION: PREPREG, METAL-CLAD~LAMINATE~AND~PRINTED~CIRCUIT~BOARD~USING~SAME}\\$ 

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(8) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/08/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

## PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless correct maintenance fee notifica	correspondence includir ed below or directed oth	ng the Patent, advance on nerwise in Block 1, by (a	rders and notification of r a) specifying a new corres	naintenance fees v pondence address	vill be and/o	mailed to the current r (b) indicating a sepa	correspondence address as trate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)			Dane	rs. Each additiona	l paper	g can only be used fo ficate cannot be used f r, such as an assignme iling or transmission.	r domestic mailings of the or any other accompanying nt or formal drawing, must
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ARLINGTON,	VA 22209-3873						(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTC	RNEY DOCKET NO.	CONFIRMATION NO.
10/591,696	07/16/2007		Kazumasa Takeuchi			1303.46565X00	3031
TITLE OF INVENTION	: PREPREG, METAL-C	LAD LAMINATE AND	PRINTED CIRCUIT BO	ARD USING SAM	Œ		
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0		\$1810	06/08/2010
EXAM	TINER	ART UNIT	CLASS-SUBCLASS				
THOMPSOI	N, CAMIE S	1794	428-292100				
Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).			For printing on the patent front page, list     (1) the names of up to 3 registered patent attorneys     or agents OR, alternatively,				
CFR 1.303).  Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.							
			(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to				
"Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			2 registered patent atto listed, no name will be	meys or agents. It	no nan	ne is 3	
3. ASSIGNEE NAME A	ND RESIDENCE DATA	A TO BE PRINTED ON	THE PATENT (print or tyr	ne)			
PLEASE NOTE: Un	less an assignee is ident	ified below, no assignee	data will appear on the p	stent. If an assign	ee is i	dentified below, the de	ocument has been filed for
(A) NAME OF ASSI		netion of this form is NO	(B) RESIDENCE: (CITY				
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Please check the appropr	riate assignee category or	categories (will not be pr	inted on the patent):	Individual G	orporat	ion or other private gro	oup entity Government
4a. The following fee(s)	are submitted:	41	o. Payment of Fee(s): (Plea	se first reapply a	ny pre	viously paid issue fee	shown above)
Issue Fee			A check is enclosed.				
Advance Order	No small entity discount p	permitted)	Payment by credit car The Director is hereby	authorized to char	ge the	required fee(s), any de	ficiency, or credit any
			overpayment, to Depo	sit Account Numb	er	(enclose a	n extra copy of this form).
	itus (from status indicate is SMALL ENTITY statu		☐ b. Applicant is no lon	ser claiming SMA	II EN	TITY status Son 37 Cl	IR 1.27(a)(2)
							e assignee or other party in
interest as shown by the	records of the United Sta	tes Patent and Trademark	Office.				
Authorized Signature				Date			
Typed or printed name			Registration N	lo			
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this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223	ions for reducing this but irginia 22313-1450. DC 313-1450.	rden, should be sent to the NOT SEND FEES OR	e Chief Information Office COMPLETED FORMS TO	r, U.S. Patent and THIS ADDRESS	Trader S. SEN	nark Office, U.S. Depa D TO: Commissioner	artment of Commerce, P.O. for Patents, P.O. Box 1450,

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



## UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/591,696	07/16/2007 Kazumasa Takeuchi		1303.46565X00	3031	
20457 75	590 03/08/2010		EXAM	UNER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP			THOMPSON, CAMIE S		
1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873		ART UNIT	PAPER NUMBER		
		1794 DATE MAILED: 03/08/201	0		

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## Notice of Allowability

Application No.	Applicant(s)
10/591,696	TAKEUCHI ET AL.
Examiner	Art Unit
Camie S. Thompson	1794

-- The MALING DATE of this communication appears on the cover sheat with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to Amendment filed 11/17/09.
- The allowed claim(s) is/are 1,2 and 9-18.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - - 1. 

      Certified copies of the priority documents have been received.
    - 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
      - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) hereto or 2) to Paper No./Mail Date
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. 
  Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date 11/17/09
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🔲 Other \_\_\_

Art Unit: 1794

## REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: Applicant claims a prepreg obtained by impregnating a resin composition comprising a resin with an imide structure and a thermosetting resin into a fiber base material with a thickness of 5-50  $\mu$ m, wherein said resin with an imide structure is a polyamide resin having the structure represented by the following general formula

$$\mathbb{R}^{N_2} \xrightarrow{\mathbf{1}} \mathbb{R}^{N_2} \xrightarrow{\mathbf{1}} \mathbb{R}^{N_2}$$

as defined in claim 1. The closest prior art,

Takeuchi et al., U.S. Patent Number 7,138,174, teaches a prepreg laminate comprising a fiber base impregnated with a resin composition wherein the fiber base has a thickness of 10 to 200 microns and the resin composition comprises a siloxane modified polyamide imide. Takeuchi

teaches that the polyamide imide structure has

within the structure.

Takeuchi fails to teach that the polyamide imide resin has the general structure

$$\mathbb{R}^{q_2} \xrightarrow{0} \mathbb{C}_{\mathbb{H}_2} \xrightarrow{\mathbb{C}_{\mathbb{H}_2}} \mathbb{C}_{\mathbb{H}_2} \xrightarrow{\mathbb{C}_{\mathbb{H}_2}} \mathbb{R}^{q_2} \qquad \text{with} \qquad \mathbb{C}_{\mathbb{H}_2} \xrightarrow{\mathbb{C}_{\mathbb{H}_2}} \mathbb{C}_{\mathbb{H}_2}$$

the structure as required by the present claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance

#### CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camie S. Thompson whose telephone number is 571-272-1530. The examiner can normally be reached on Monday-Friday 8:00 am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/ Supervisory Patent Examiner, Art Unit 1794 /Camie S Thompson/ Examiner, Art Unit 1794